PHASE I ARCHAEOLOGICAL IDENTIFICATION INVESTIGATIONS
MANAGEMENT SUMMARY
BLUE BALL PROPERTIES AREA TRANSPORTATION IMPROVEMENT PROJECT
I-95 RAMP WIDENING AND IMPROVEMENTS EAST OF SR 0202
BRANDYWINE HUNDRED, NEW CASTLE COUNTY, DELAWARE

By

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MCCORMICK, TAYLOR & ASSOCIATES, INC.
Philadelphia Pennsylvania

Submitted To

UNITED STATES DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

and

DELAWARE DEPARTMENT OF STATE
Division of Historical and Cultural Affairs
Bureau of Archaeology and Historic Preservation

Prepared For

DELAWARE DEPARTMENT OF TRANSPORTATION
Division of Planning
Location and Environmental Studies Office

Chao Hu
Director of Preconstruction

January 2001

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I. Introduction

The Federal Highway Administration (FHWA) and the Delaware Department of Transportation (DelDOT) are developing the proposed Blue Ball Properties Area Transportation Improvement Project. The project is located in Brandywine Hundred, New Castle County, Delaware and involves proposed improvements to the intersections of existing Route 202 with Route 141, Murphy Road, Rockland Road and Foulk Road and the interchange between Route 202 and Interstate 95. The results of the Phase I Archaeological Identification Survey for improvements east of existing SR 0202, as well as widening to the southbound I-95 entrance ramp, both components of the Blue Ball Properties Area Transportation Improvement Project, are discussed in this document ***(Figure 1)***.

The Nemours Historic District dominates the area on the west side of Concord Pike and consists of the A.I. DuPont Institute, mansion and gardens; the Murphy House; the Bird-Husbands House and the Blue Ball Barn. Municipal sites in the project area are the Porter Reservoir and Filtration Plant and the Rock Manor (public) Golf Course. Residential development in the area consists of Deerhurst, Fairfax, Alapocas, and Rock Manor subdivisions. In addition, there are several strip malls to accommodate the suburban community. This area is a suburb of Wilmington, Delaware.

The project must be in compliance with Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's (ACHP's) implementing regulations, 36 CFR § 800. McCormick, Taylor & Associates, Inc (MTA) is completing the cultural resources studies.

MTA is currently completing a survey of all historic architectural resources and archaeological resources within the area of potential effect (APE) for this project, in consultation with DelDOT, FHWA, the Delaware State Historic Preservation Officer (SHPO), and additional Consulting Parties. The APE has been previously established (Shaffer and Arnold 2000). The survey of historic architectural resources (Arnold 2000) is currently being reviewed by the Consulting Parties. A Phase I Archaeological Identification Survey is being completed. Three archaeological sites have been identified that require Phase II Archaeological Evaluation Testing: 7NC-B-11, the Weldin Plantation Site, previously identified by Thunderbird Archeological Associates, Inc. (Taylor et al. 1989), 7NC-B-49, the Augustine Cutoff Site, previously identified by Thunderbird Archeological Associates, Inc. (Wholey et al. 2000) and 7NC-B-54, the Milner #1 Site, previously identified by John Milner Associates, Inc. (JMA) (Roberts 1999). The goal of the additional testing is to provide enough information to determine if these sites are eligible for inclusion in the National Register of Historic Places.

The Principal Investigator for the Archaeological Identification and Evaluation Testing was Barbara Shaffer. Richard Baublitz, MTA's Pennsylvania Archaeological Group Coordinator, provided technical assistance and participated in the field work. Robert Eiswert was the Archaeological Field Director. Archaeological Field Technicians were Daniel Angelo, Jeffrey Bowdoin, Brenda Carr, Timothy Coan, James Di Vietro, Colin Ferriman, Bonnie Lassiter, Elizabeth Korb, Timothy Mancl, Wayne Mellin, David Orr, Kevin Simons, and Rebecka Weinsteiger. Jonathan Bream inventoried the artifacts. Graphics were produced by Kathy Weiser, Jennifer Dolan, and Ryan Akins. Qualifications of key personnel are in ***Appendix A***.

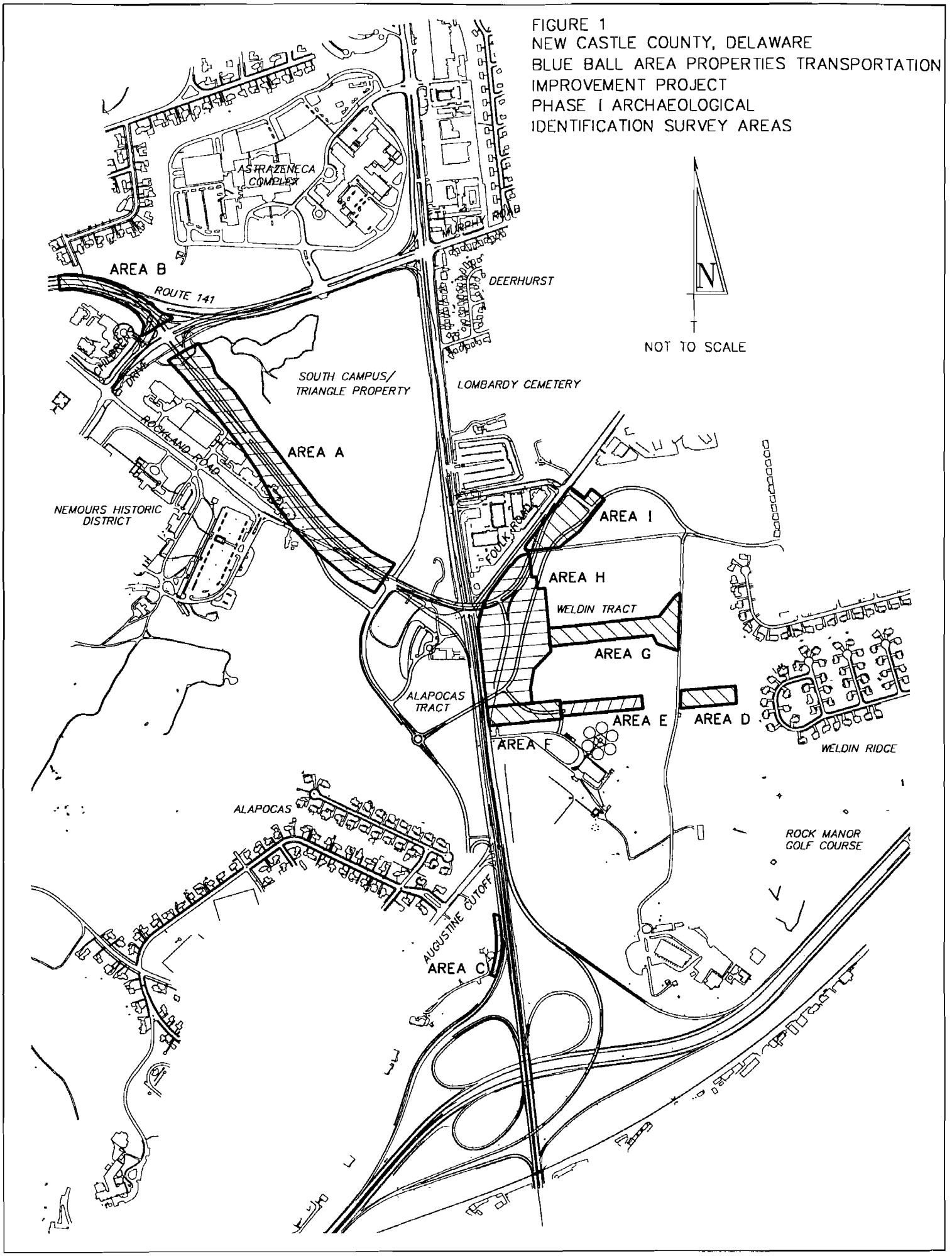
FIGURE 1
NEW CASTLE COUNTY, DELAWARE
BLUE BALL AREA PROPERTIES TRANSPORTATION IMPROVEMENT PROJECT
PHASE I ARCHAEOLOGICAL IDENTIFICATION SURVEY AREAS
N
NOT TO SCALE
ASTRAZENECA COMPLEX
MURPHY ROAD
AREA B
ROUTE 141
DEERHURST
CHINBERG DRIVE
SOUTH CAMPUS/ TRIANGLE PROPERTY
LOMBARDY CEMETERY
ROCKLAND ROAD
AREA A
NEMOURS HISTORIC DISTRICT
FOULK ROAD
AREA I
AREA H
WELDIN TRACT
AREA G
ALAPOCAS TRACT
AREA E
AREA D
AREA F
WELDIN RIDGE
ALAPOCAS
ROCK MANOR GOLF COURSE
AUGUSTINE CUTOFF
AREA C

The results of the Phase I Archaeological Identification Survey for the proposed improvements east of existing SR 0202, as well as widening to the southbound I-95 entrance ramp, are discussed in this management summary. Summaries of the Phase I Archaeological Identification Survey for the remainder of the Blue Ball Properties Area Transportation Improvement Project and for the Phase II Archaeological Evaluation Testing at 7NC-B-54 and 7NC-B-49 have been presented in separate documents (Shaffer 2000, Shaffer and Eiswert 2000, Shaffer and Eiswert 2001). A summary of the Phase II Archaeological Evaluation Testing at 7NC-B-11 will be submitted at a later date. A final Phase I/II Archaeological Identification and Evaluation Report will be prepared once all of the archaeological testing for the project has been completed.

II. Archaeological Survey Methodology

Extensive archaeological investigations have been previously conducted within the APE for this project. Previous testing and identified archaeological resources are discussed in more detail by Shaffer and Arnold (2000). Areas in which archaeological testing is necessary were agreed upon by the DelDOT and the SHPO in a field view on November 27, 2000.

The Phase I Archaeological Identification Testing for the Blue Ball Properties Area Transportation Improvement Project was divided into nine sections ***(Figure 1)***. Areas A and B were discussed in a previous document (Shaffer 2000). The results of the archaeological testing conducted in Areas C through I are discussed in this report. The testing was conducted in December 2000 and January 2001. Area C is the located to the west of the existing southbound entrance ramp from SR 0202 south onto I-95. Areas D through I are all east of existing SR 0202 and include areas in which realigned roads and new bike paths are proposed.

The archaeological testing methodology consisted of the excavation of shovel test pits (STPs) measuring 0.57 meter in diameter placed at 15 meter intervals throughout the areas in which testing was determined necessary. All of the landforms within the portion of the APE in which testing was necessary were upland settings. Soil profiles generally consisted of a plowzone overlying sterile subsoil. The STPs were excavated 0.10 meters into the sterile subsoil. All soils removed from the STPs and TUs were screened through ¼ inch mesh hardware cloth. STPs were excavated by natural strata (designated Levels). Modern trash was discarded during the excavations. An inventory of recovered and discarded artifacts and trash is contained in ***Appendix B***. Notes regarding excavations as well as plan view and profile maps were recorded in the field. Black and white and color photographs were taken where appropriate.

III. Archaeological Survey Results

A. Area C

Nine STPs, 70-71, were excavated in Area C, which is located to the west of the southbound entrance ramp from south SR 0202 to I-95 ***(Figure 2)***. The ramp may be widened up to three meters to the west of the existing fence. The SHPO and DelDOT agreed during the November 27, 2000 field view that the area north of STP 70 had been previously disturbed, probably by prior activities associated with the construction of SR 0202. Therefore, no testing was conducted north of STP 70.

Shovel test pit 78 was excavated 23 meters from STP 77 due to the presence of a tile drain. A sinkhole currently exists in this area. The current property owner pointed out the area in which the drain is located, which was discernable due to differential vegetation.

Artifacts associated with the house located at 1 Rock Manor Avenue were recovered during the survey ***(Appendix B)***. Fifteen artifacts were recovered from STPs 72, 73, 75, 76, 77, and 79. The artifacts are associated with 1 Rock Manor, an early twentieth century architectural property determined to be eligible for listing in the National Register of Historic Places (Delaware CRS N-12673). The artifacts consist of 4 pieces of roofing slate, 7 fragments of bottle glass, 1 fragment of window glass, 1 whiteware fragment, brick fragment, and 1 piece of concrete. The artifacts are a light scatter of trash deposited throughout the occupation of the property and do not represent a significant archaeological resource. The site extends outside of the APE for this project (three meters from the existing edge fence) and may or may not have the potential to contribute significant information in history. However, the portion of the site within the APE does not have that potential. No additional archaeological work is recommended at this site.

B. Area D

Area D is the location of a proposed bike path to the east of Carruthers Lane and the west of Matson Run ***(Figure 3)***. Daniel Wagner, a geomorphologist, examined the area on December 6, 2000. He indicated that the landform immediately to the west of Matson Run in this area is an upland setting. The potential for the existence of prehistoric archaeological resources was high within the A horizon in this area.

Two transects of STPs 15 meters apart were excavated within this area. Sixteen STPs, 80-95, were excavated. No prehistoric artifacts were recovered. Eight historic artifacts or pieces of modern trash were recovered from Area D. The artifacts/trash were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

C. Area E

The eastern portion of a proposed new entrance into the Porter Reservoir was tested as Area E ***(Figure 4)***. Two transects of STPs 15 meters apart were excavated in this area. The transects began 90 meters to the west of Carruthers Lane and continued to the tree line that divides the eastern and western fields located between SR 0202 and Carruthers Lane. Twenty-eight (28)

ROCK MANOR AVENUE
I-95 RAMP
I-95
79
78
SCALE
25 FEET 0 25 FEET
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SHOVEL TEST PIT
REFERENCE TO INDEX
(SEE FIGURE 1)
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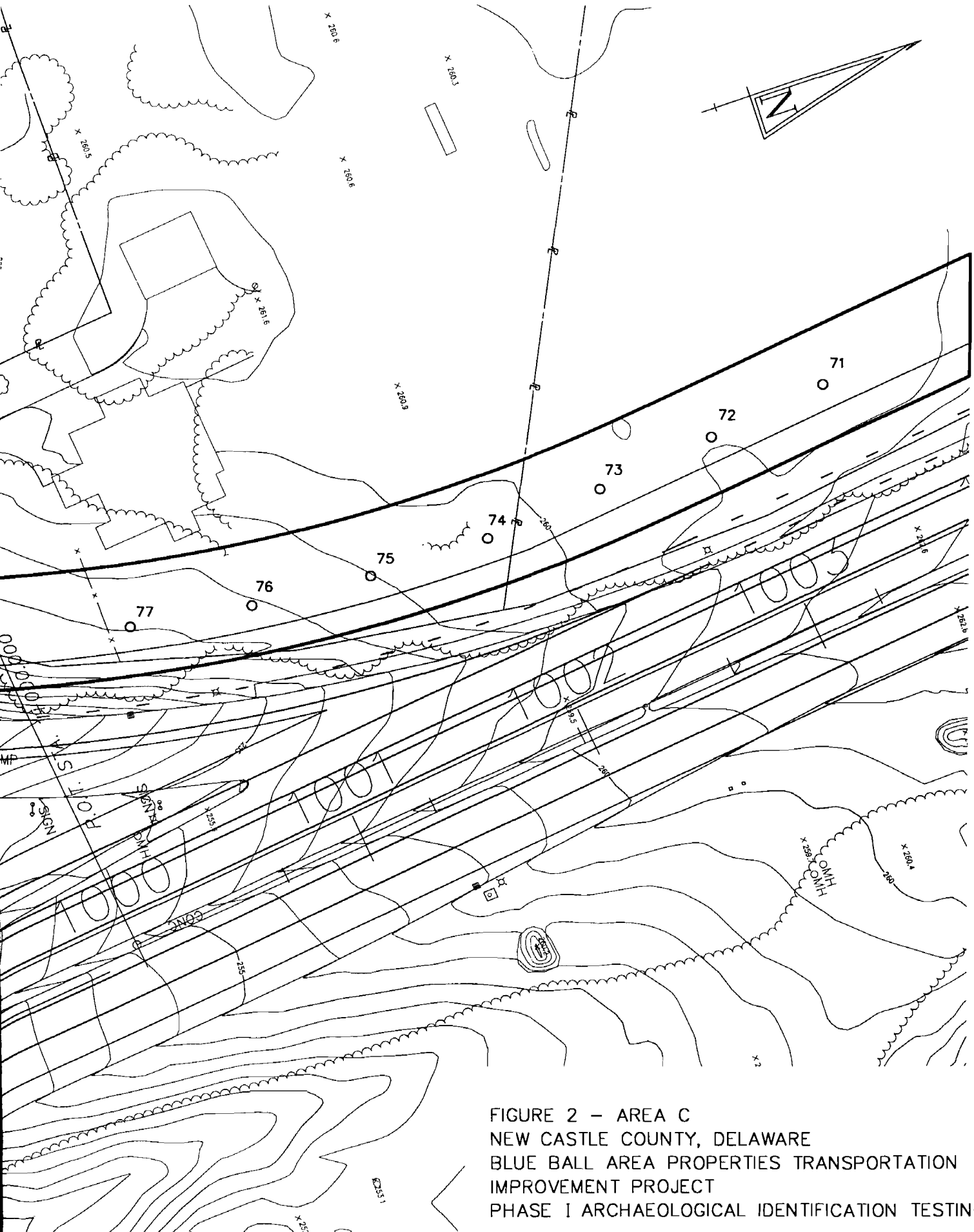
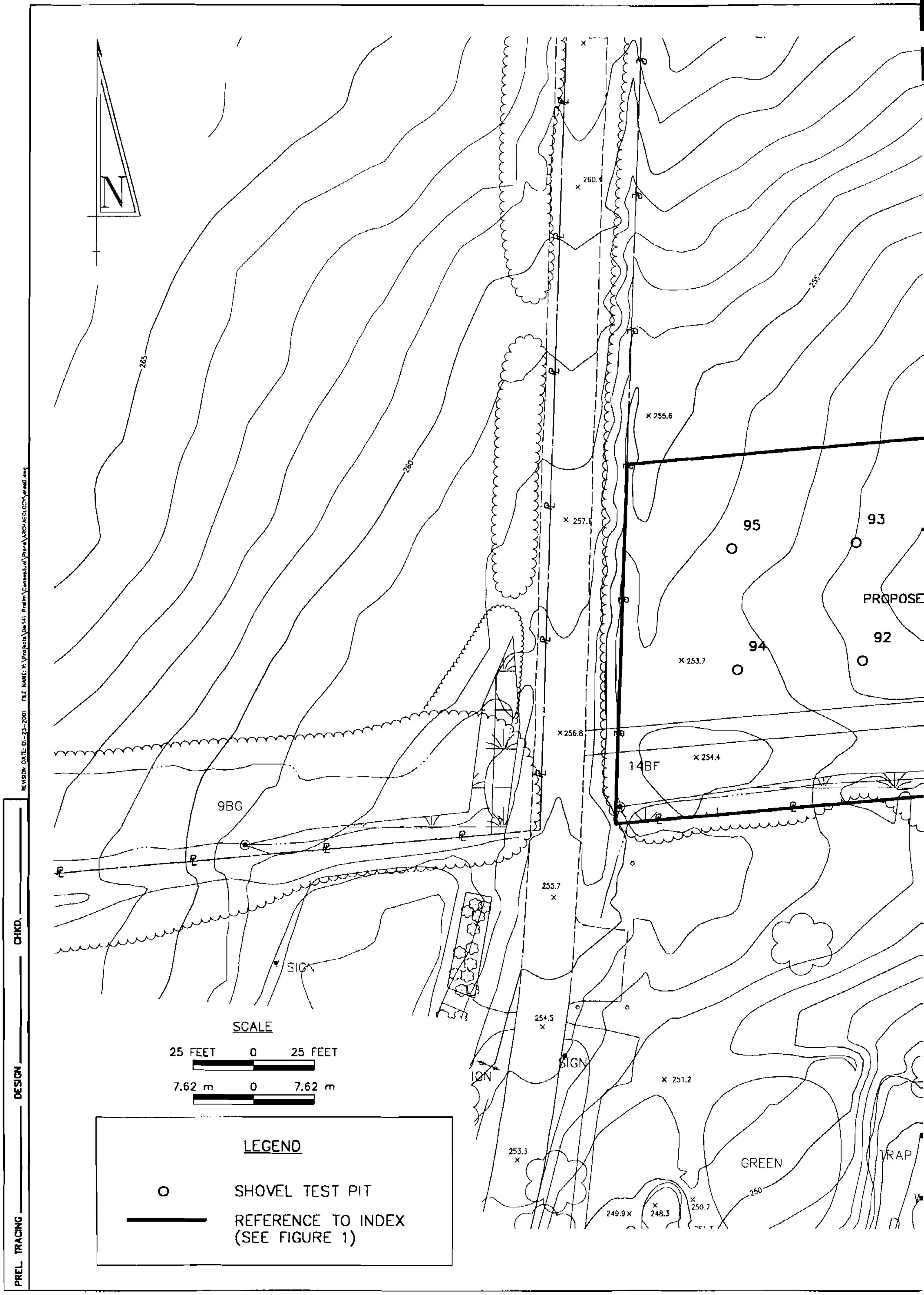


FIGURE 2 – AREA C
NEW CASTLE COUNTY, DELAWARE
BLUE BALL AREA PROPERTIES TRANSPORTATION IMPROVEMENT PROJECT
PHASE I ARCHAEOLOGICAL IDENTIFICATION TESTING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ION
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TRAP
SCALE
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SHOVEL TEST PIT
REFERENCE TO INDEX
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REVISION DATE: 01-23-2001

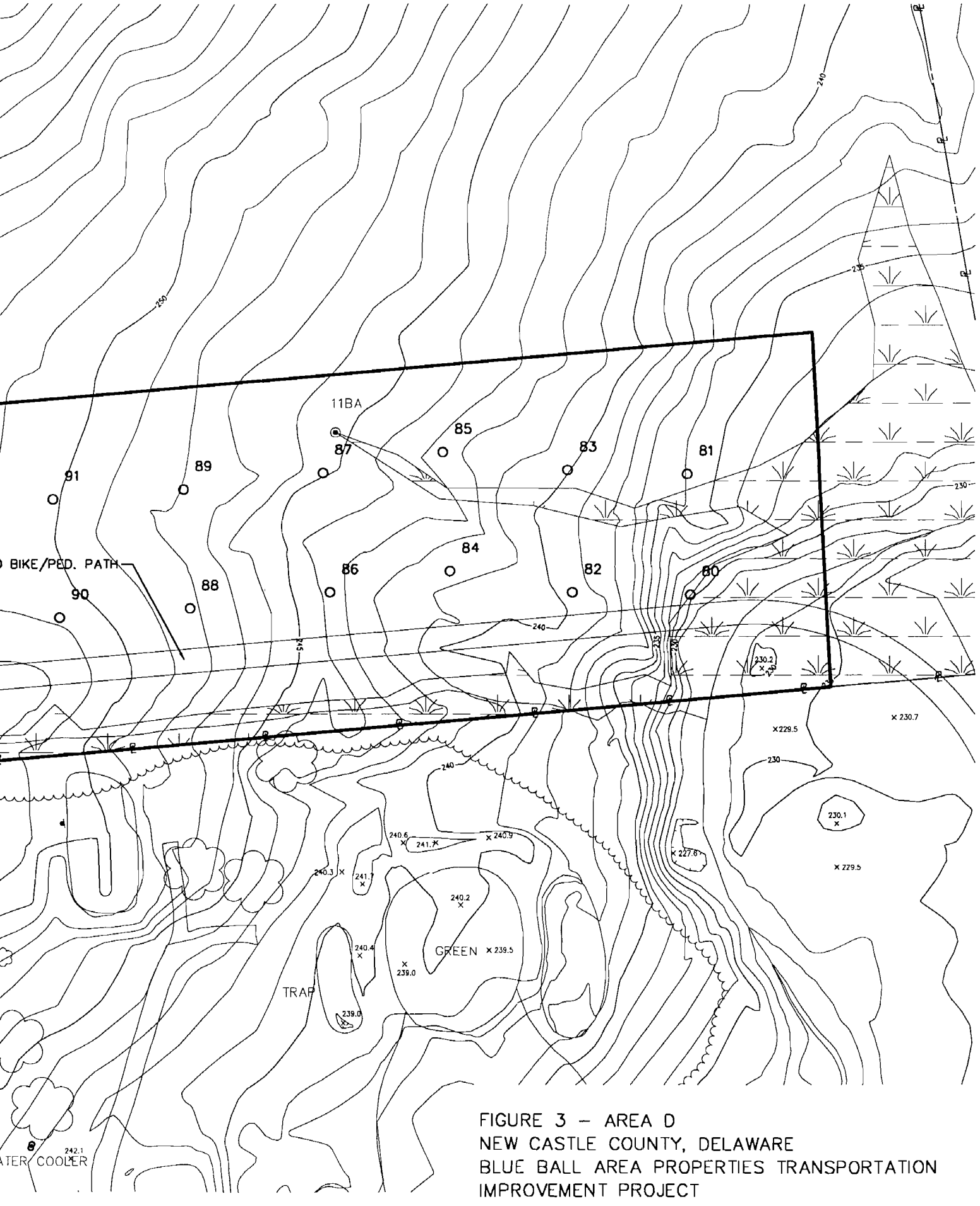
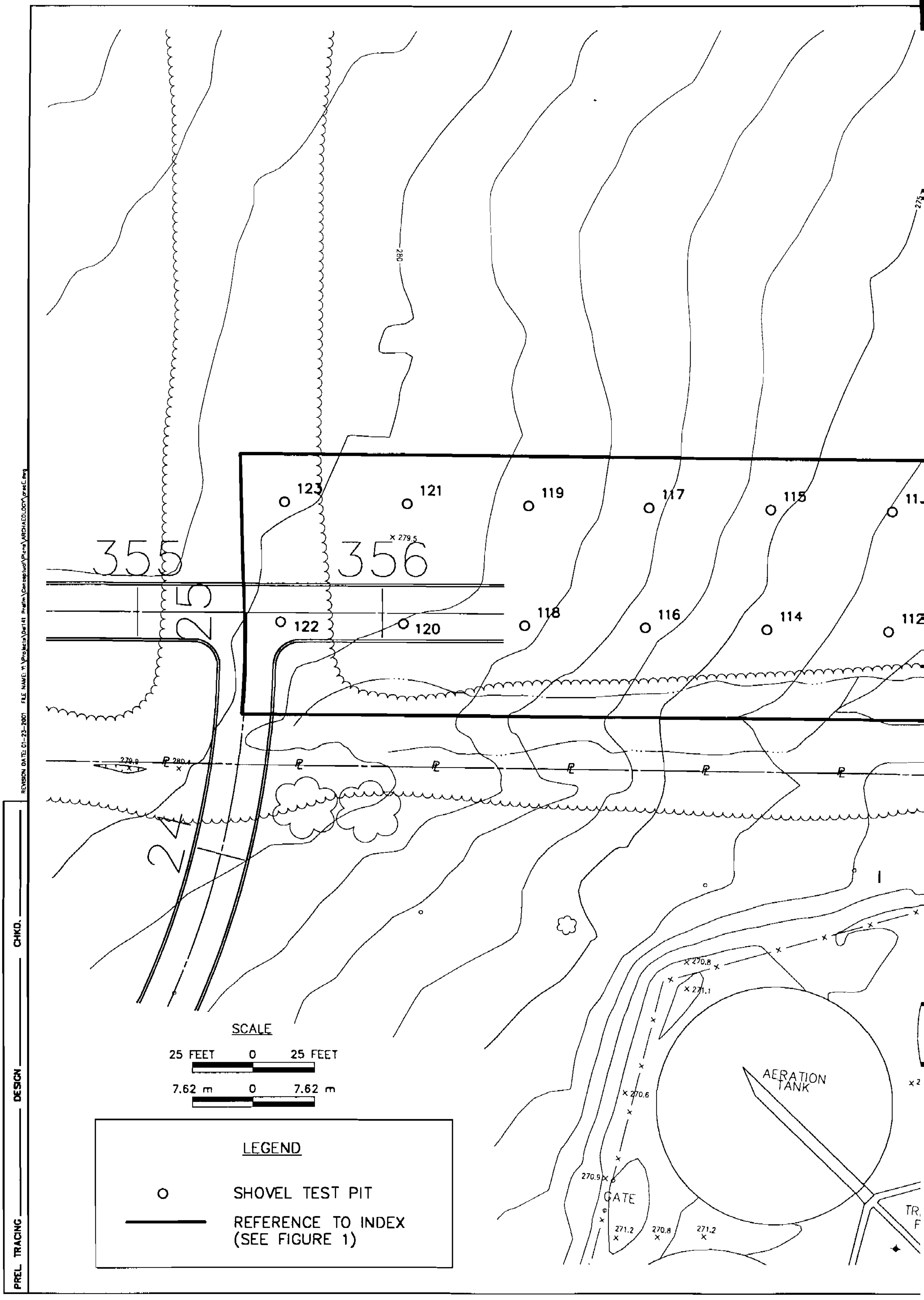


FIGURE 3 – AREA D
NEW CASTLE COUNTY, DELAWARE
BLUE BALL AREA PROPERTIES TRANSPORTATION IMPROVEMENT PROJECT
PHASE I ARCHAEOLOGICAL IDENTIFICATION TESTING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119
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122
120
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116
114
112
× 279.5
355
356
25
24
279.9
280.4
× 270.8
× 271.1
× 270.6
270.9
GATE
271.2
270.8
271.2
AERATION TANK
SCALE
25 FEET 0 25 FEET
7.62 m 0 7.62 m
LEGEND
SHOVEL TEST PIT
REFERENCE TO INDEX (SEE FIGURE 1)
REVISION DATE: 01-23-2001
PREL. TRACING
DESIGN
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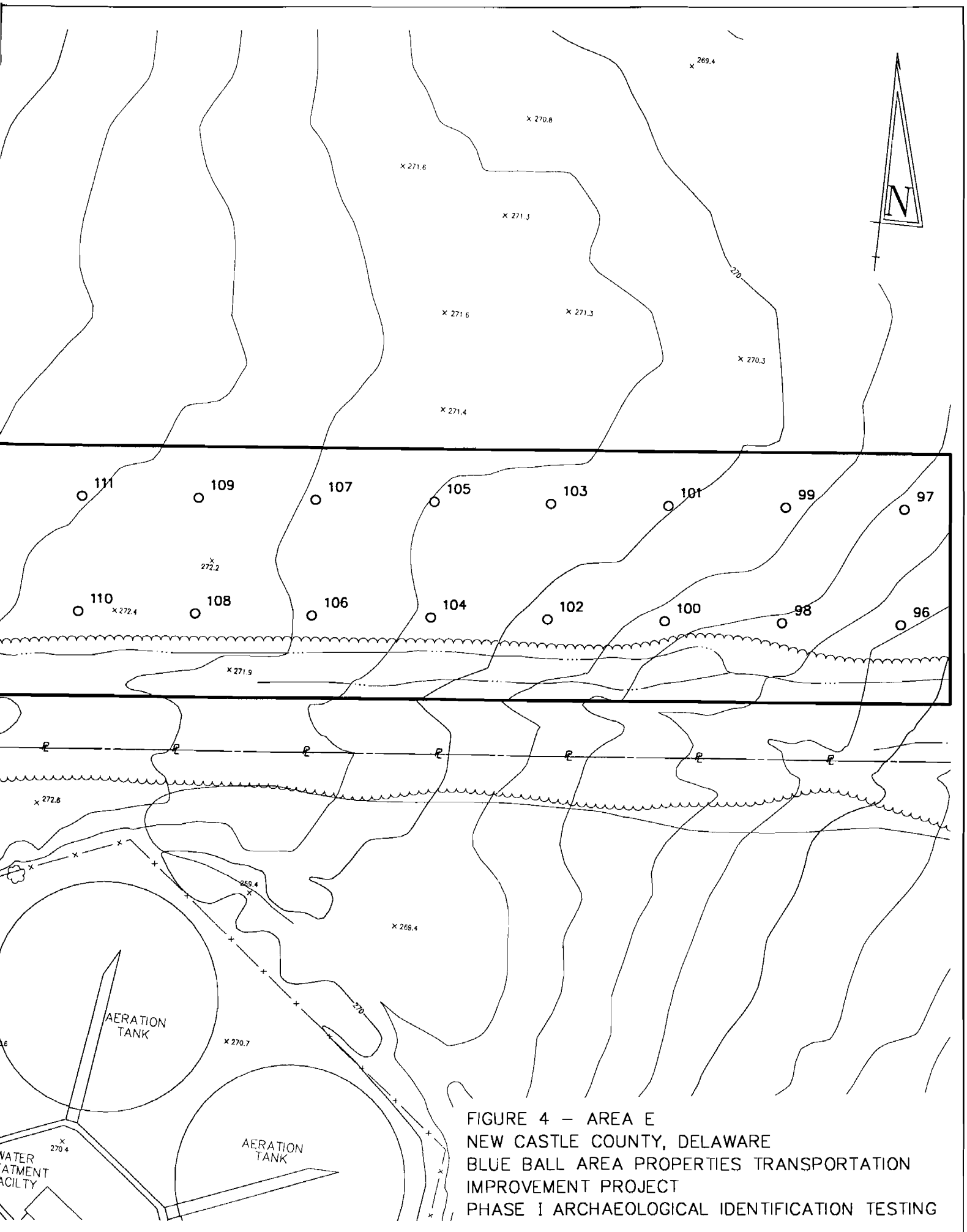


FIGURE 4 – AREA E
NEW CASTLE COUNTY, DELAWARE
BLUE BALL AREA PROPERTIES TRANSPORTATION IMPROVEMENT PROJECT
PHASE I ARCHAEOLOGICAL IDENTIFICATION TESTING

STPs, 96-123, were excavated in Area E. Four historic artifacts or pieces of modern trash were recovered. The artifacts/trash were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

D. Area F

Area F contains the western portion of the proposed new entrance road into the Porter Reservoir ***(Figure 5)***. Thirty-one (31) STPs, 124-154, were excavated in Area F. Two transects of STPs 15 meters apart were excavated from the tree line that divides the eastern and western fields. Three transects were excavated 45 meters west of the tree line to existing SR 0202. Five historic artifacts or pieces of modern trash were recovered. The artifacts/trash were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

E. Area G

The location of a proposed bike path extending from existing Carruthers Lane to the tree line between the eastern and western fields was tested as Area G ***(Figure 6)***. Forty-five (45) STPs, 155-199, were excavated in two transects 15 meters apart. After the initial STPs had been excavated, the proposed plans were revised. An additional 7 STPs, 404-410, were excavated in this area. Four historic artifacts or pieces of modern trash were recovered. The artifacts/trash were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

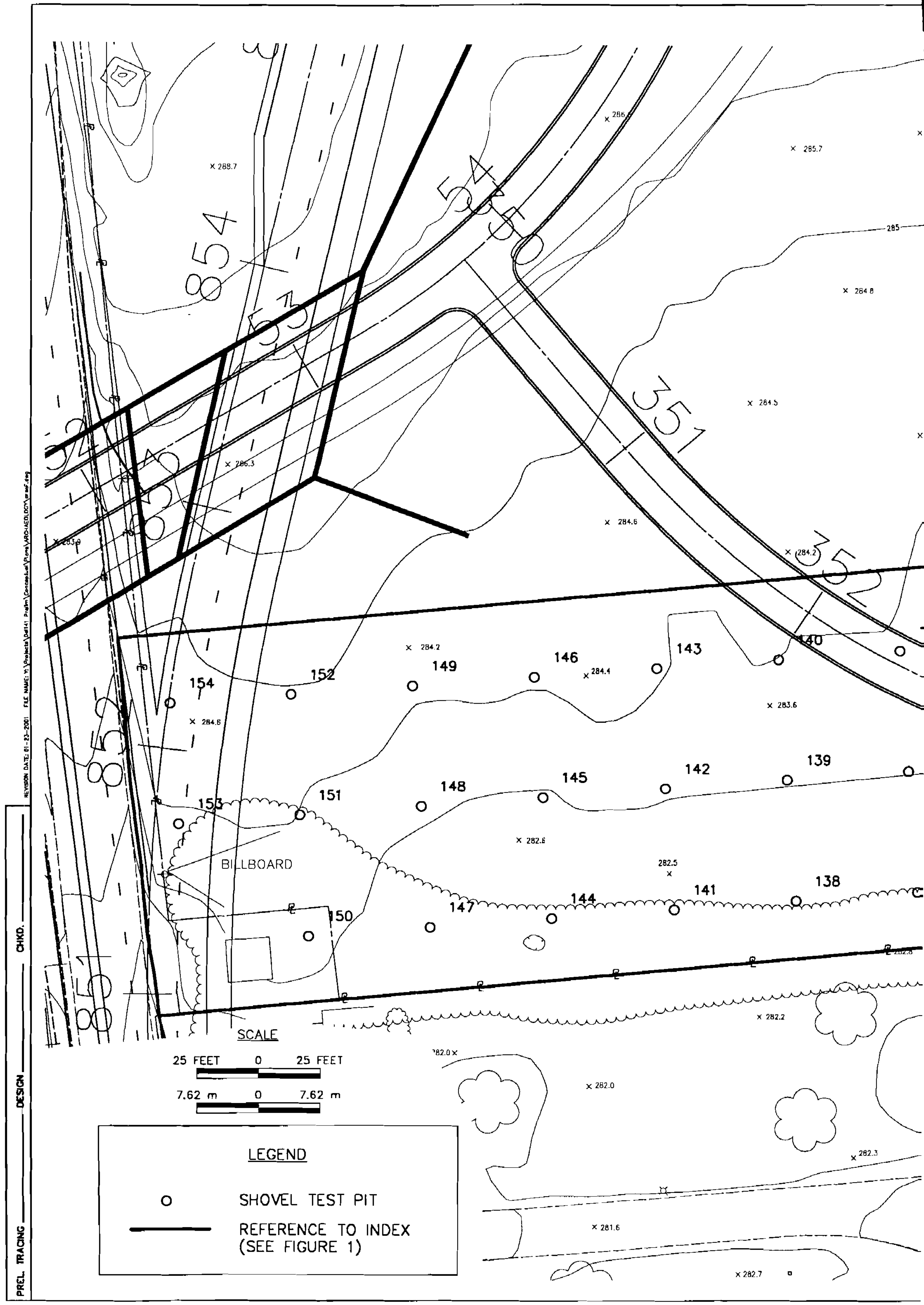
F. Area H

Area H is located west of SR 0202 and east of the tree line dividing the western and eastern fields ***(Figure 7)***. Improvements to SR 0202, Weldin Road, and Foulk Road are proposed in this area, as well as the construction of a new bike path. One hundred and fifty-six (151) STPs, 206-351 and 419-423, were laid out in this area on a 15 meter grid. Shovel Test Pits 307, 308, and 323, located near the intersection of Foulk and Weldin Roads, were not excavated. Several STPs that were excavated in this area exhibited a disturbed profile, probably resulting from staging associated with construction activities on SR 0202. Forty-four (44) historic artifacts or pieces of modern trash were recovered. The artifacts/trash were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

G. Area I

Area I is located in the northwestern quadrant of the intersection of Weldin and Foulk Roads ***(Figure 8)***. Improvements to Foulk Road are proposed in this area. The area is immediately across Weldin Road from the Weldin Plantation Archaeological Site, 7NC-B-11, a potentially eligible historic farmstead. Fifty-nine (59) STPs, 353-403 and 412-418, were excavated in this area on a 15 meter grid.

Forty-nine (49) historic artifacts were recovered from Area I. Forty (40) of the artifacts were recovered from within 45 meters of Weldin Road, directly across from the Weldin Plantation Archaeological Site, 7NC-B-11. The majority of the artifacts date to the nineteenth century.



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BILLBOARD
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139
138
SCALE
25 FEET 0 25 FEET
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LEGEND
SHOVEL TEST PIT
REFERENCE TO INDEX
(SEE FIGURE 1)
PREL. TRACING
DESIGN
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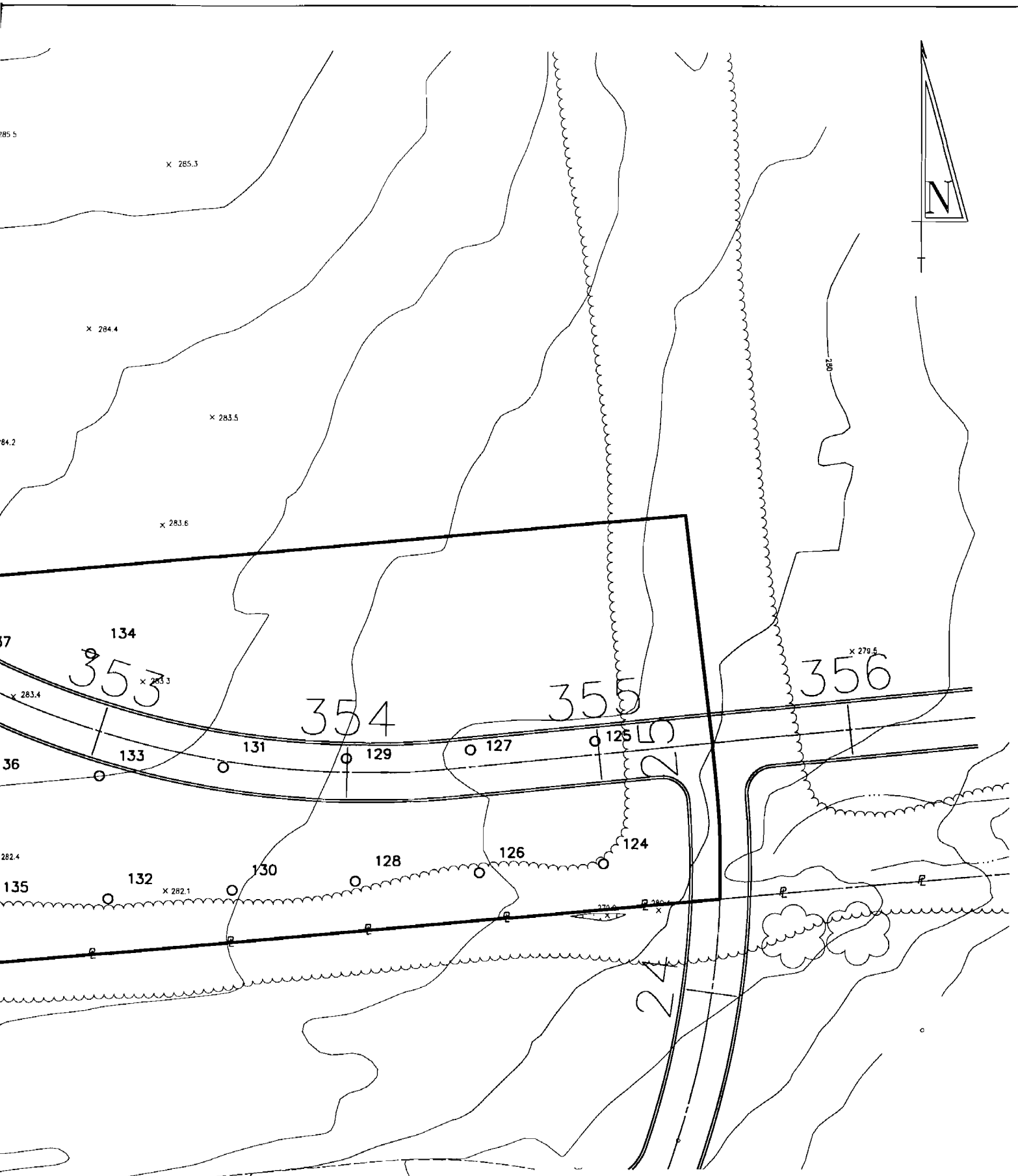
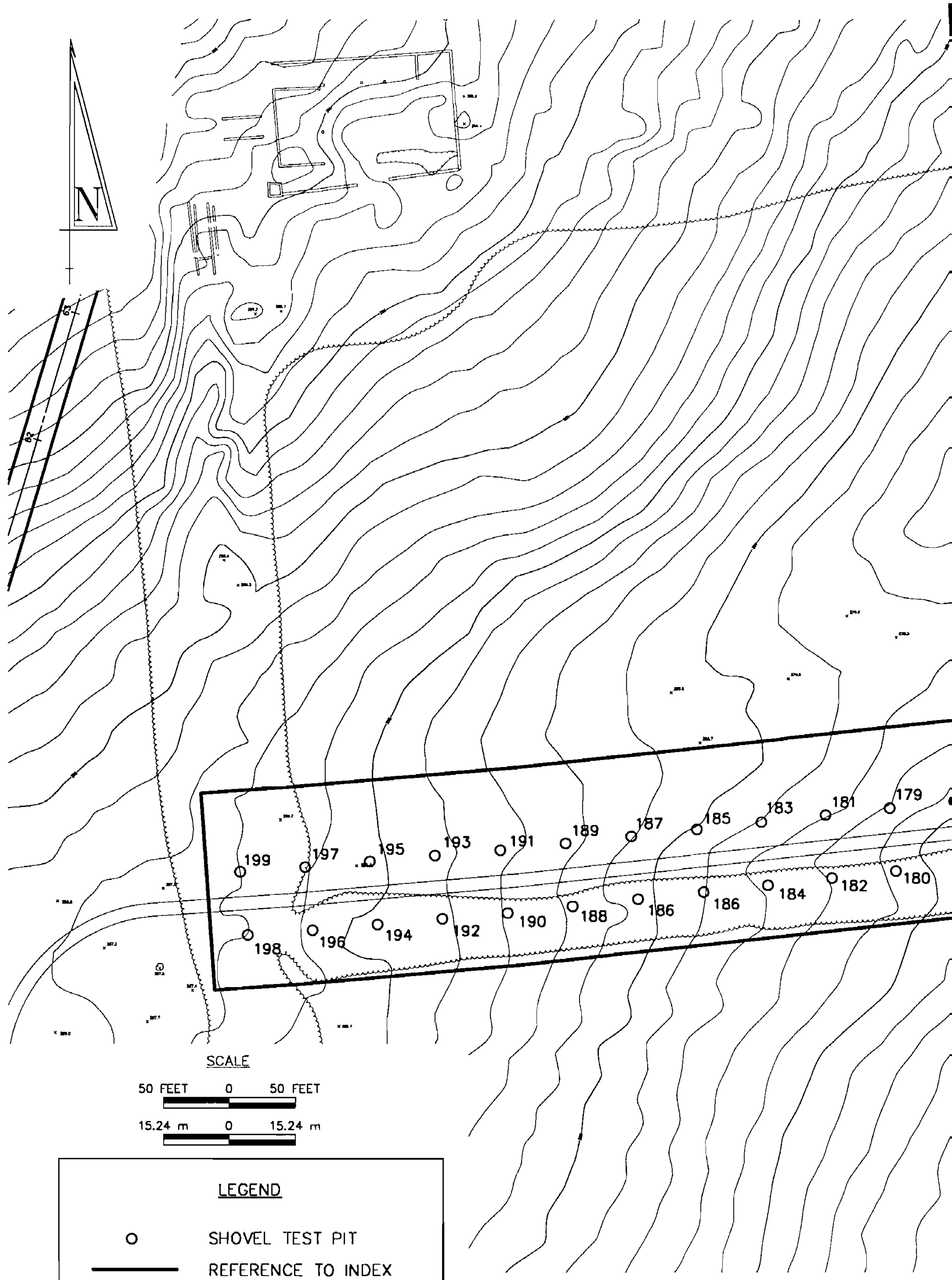


FIGURE 5 – AREA F
NEW CASTLE COUNTY, DELAWARE
BLUE BALL AREA PROPERTIES TRANSPORTATION IMPROVEMENT PROJECT
PHASE I ARCHAEOLOGICAL IDENTIFICATION TESTING



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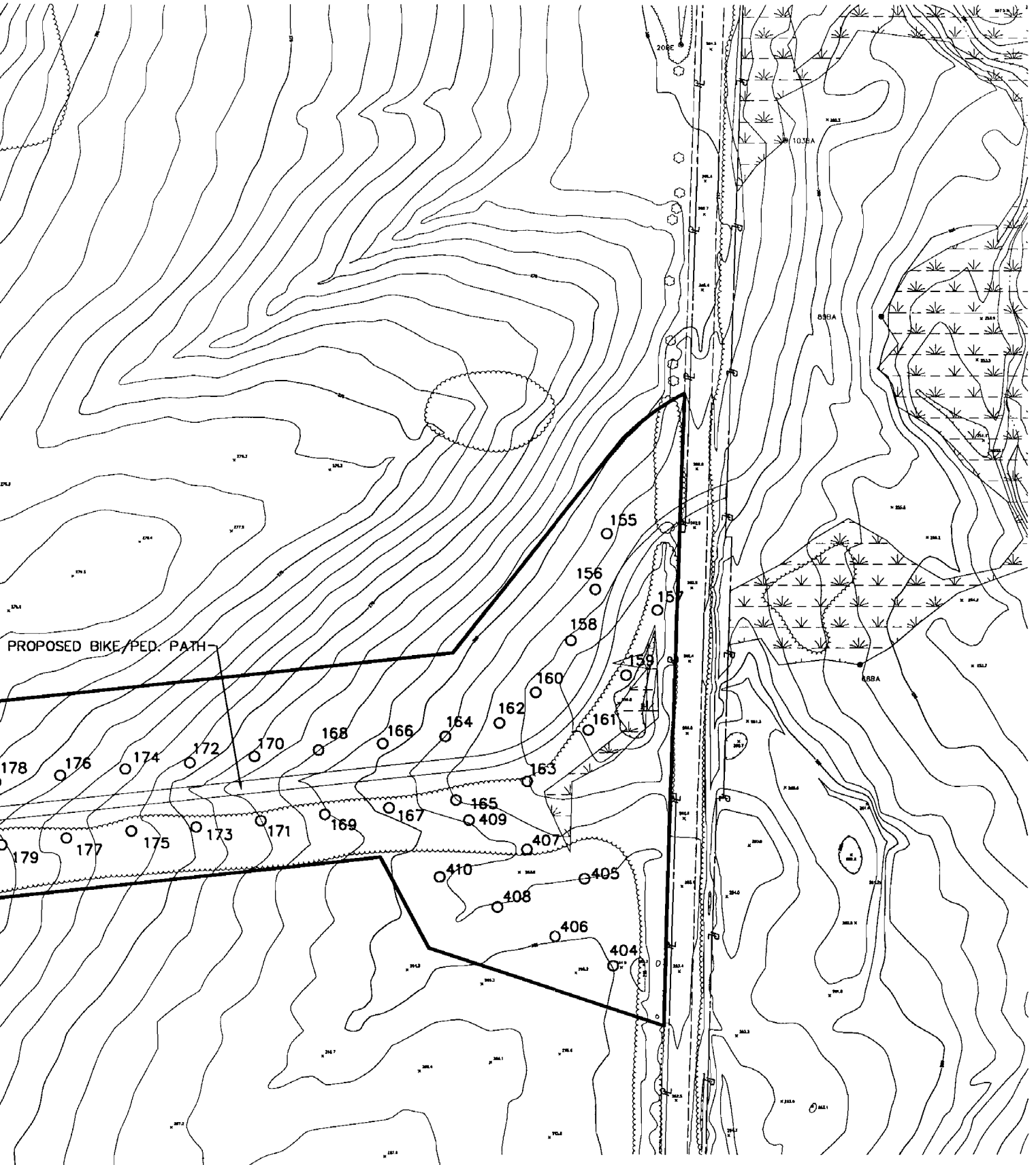
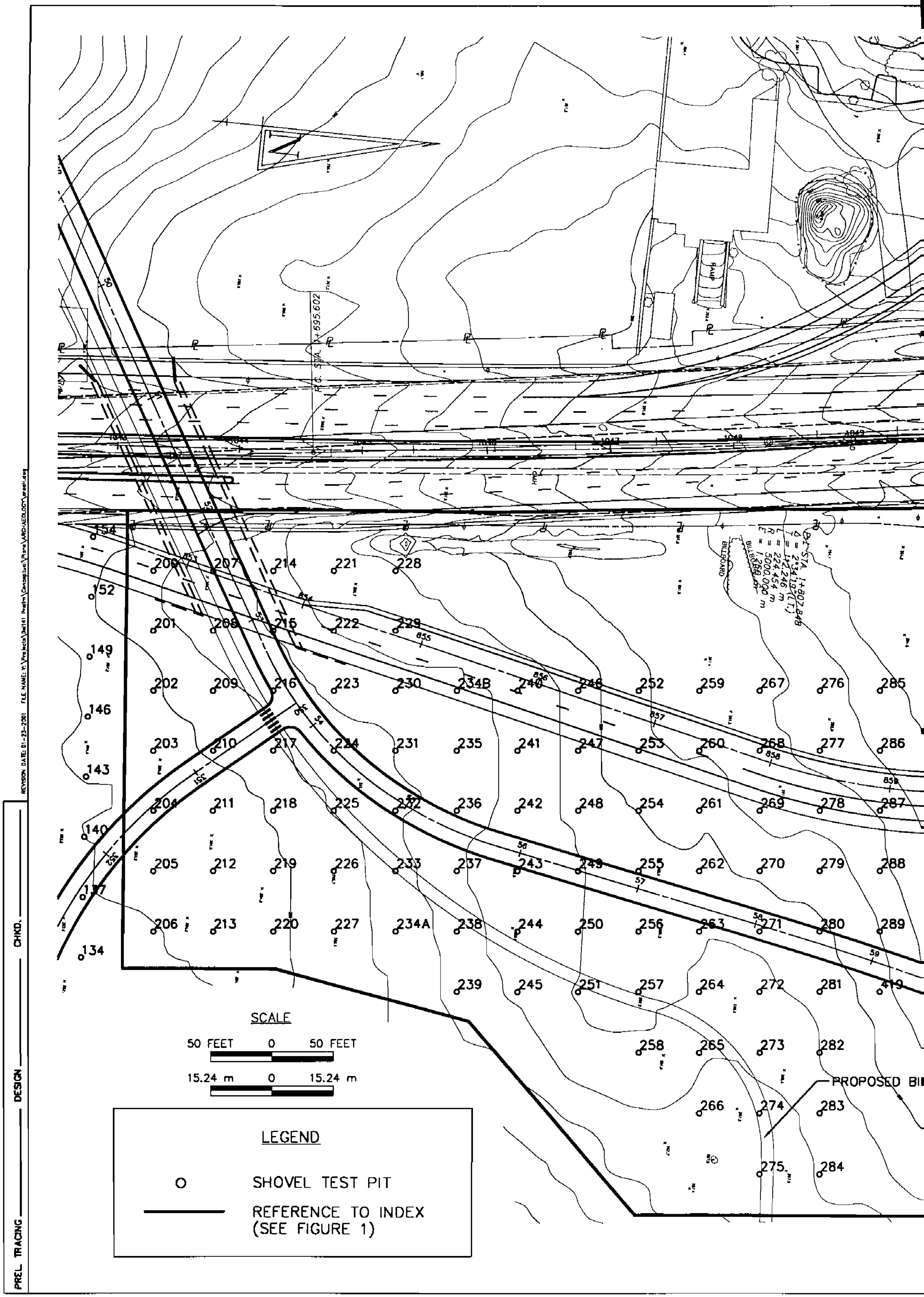


FIGURE 6 – AREA G
NEW CASTLE COUNTY, DELAWARE
BLUE BALL AREA PROPERTIES TRANSPORTATION IMPROVEMENT PROJECT
PHASE I ARCHAEOLOGICAL IDENTIFICATION TESTING



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SHOVEL TEST PIT
REFERENCE TO INDEX
(SEE FIGURE 1)
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BILLBOARD
RAMP
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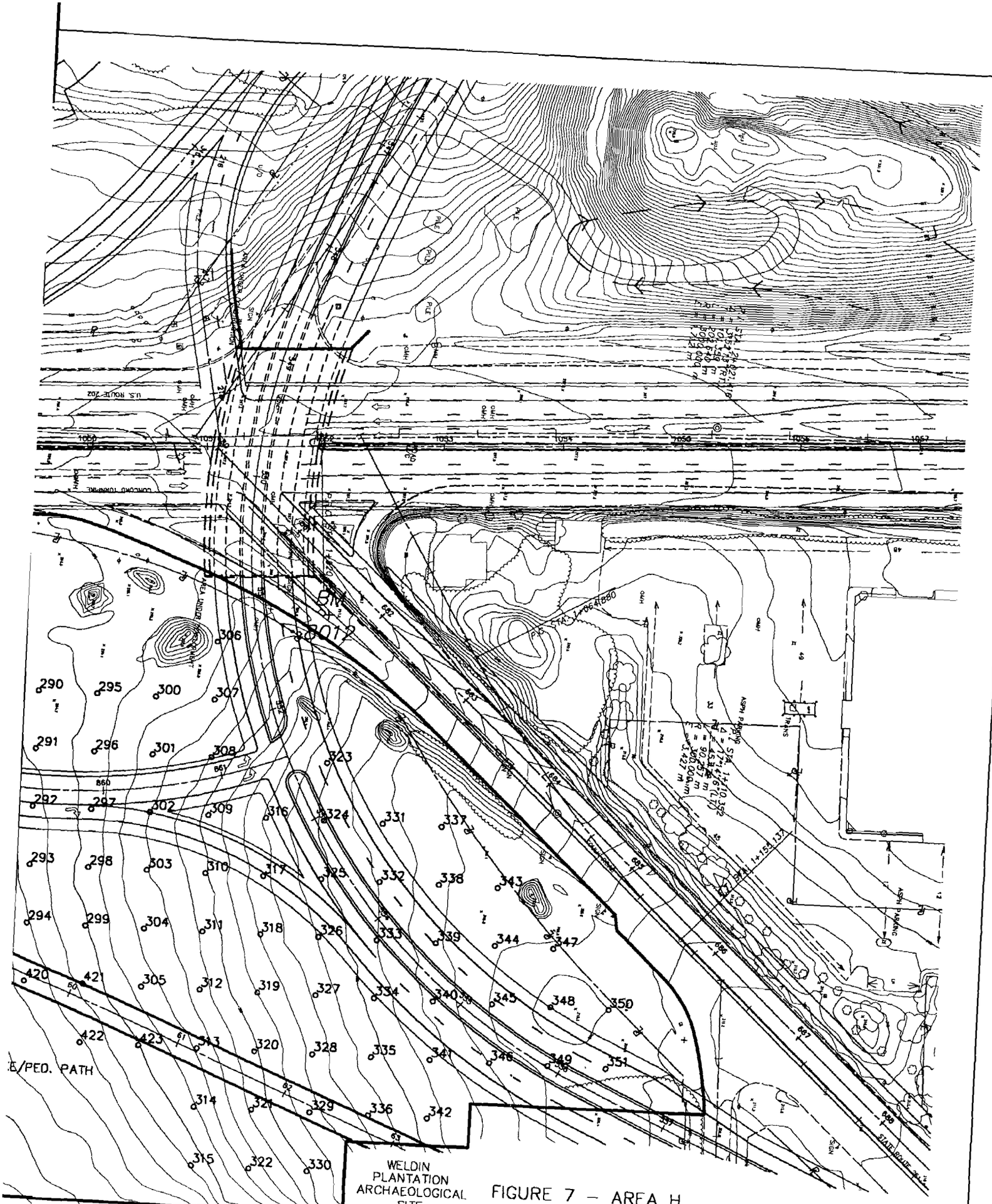
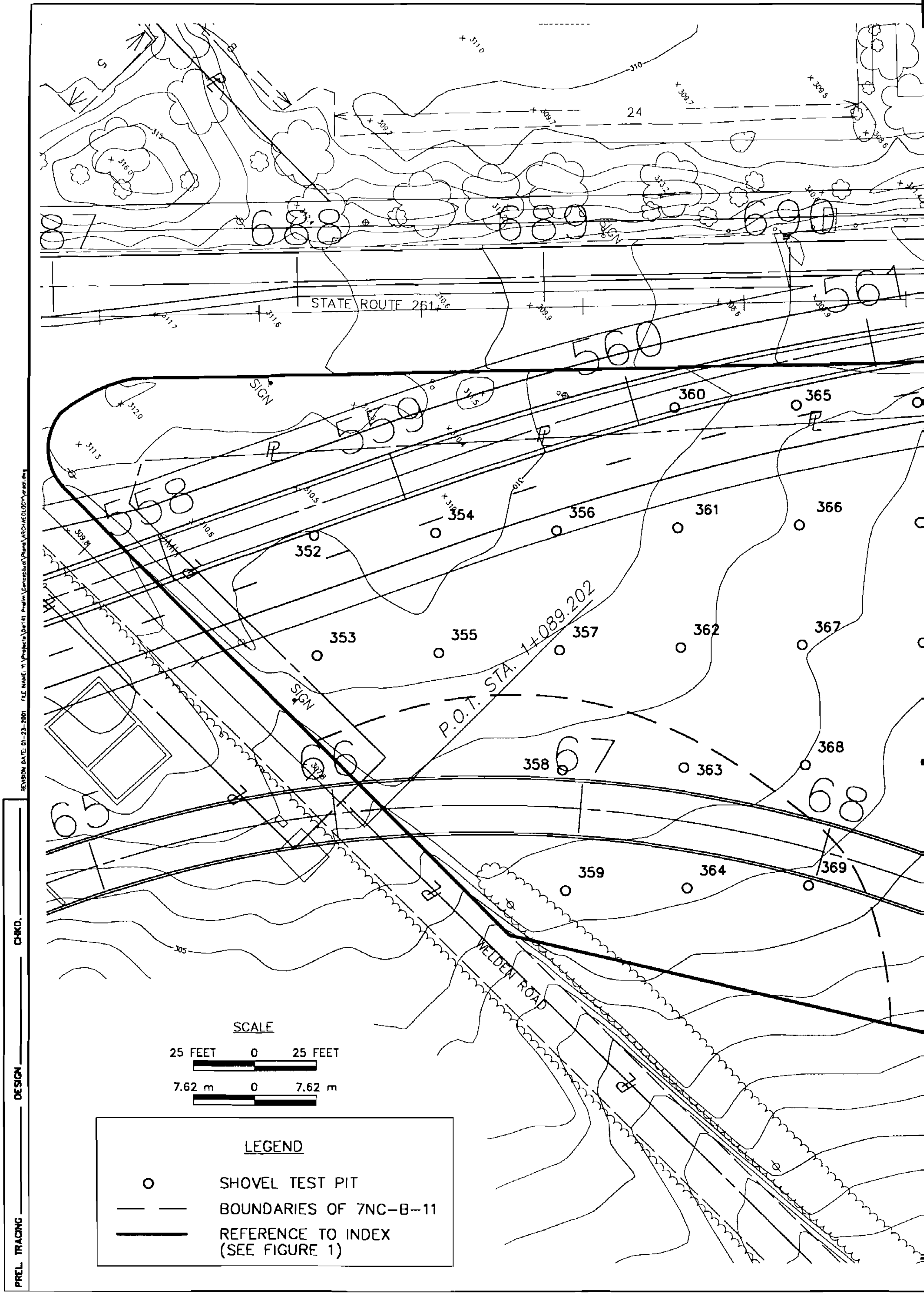


FIGURE 7 – AREA H
NEW CASTLE COUNTY, DELAWARE
BLUE BALL AREA PROPERTIES TRANSPORTATION
IMPROVEMENT PROJECT
PHASE I ARCHAEOLOGICAL IDENTIFICATION TESTING


STATE ROUTE 261
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P.O.T. STA. 1+089.202
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SCALE
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SHOVEL TEST PIT
BOUNDARIES OF 7NC-B-11
REFERENCE TO INDEX
(SEE FIGURE 1)
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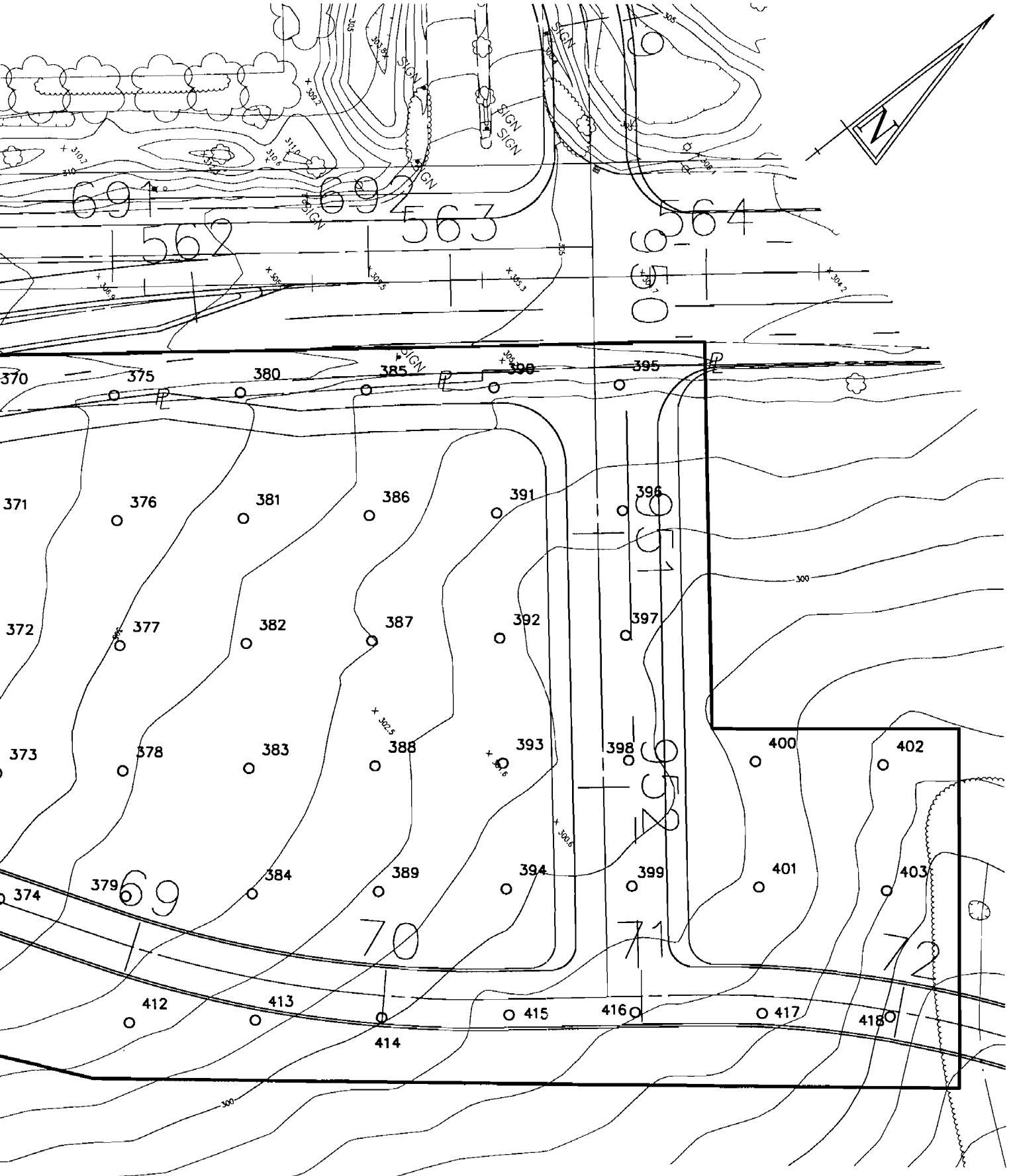

FIGURE 8 – AREA I
NEW CASTLE COUNTY, DELAWARE
BLUE BALL AREA PROPERTIES TRANSPORTATION IMPROVEMENT PROJECT
PHASE I ARCHAEOLOGICAL IDENTIFICATION TESTING

This area is associated with 7NC-B-11, the boundaries of which will be revised to include this area ***(Figure 8)***. The portion of 7NC-B-11 to the north of Weldin Road will be included in the discussion of the eligibility of the site in the management summary currently being prepared for the site. If the site is determined to be eligible for the National Register of Historic Places and this portion of the site cannot be avoided by the project, appropriate mitigation measures, determined in consultation with the Consulting Parties, will be undertaken.

Representative STP soil profiles are in ***Figure 9***. Shovel test pit 330 exhibits the disturbed profile referred in the discussion of Area H.

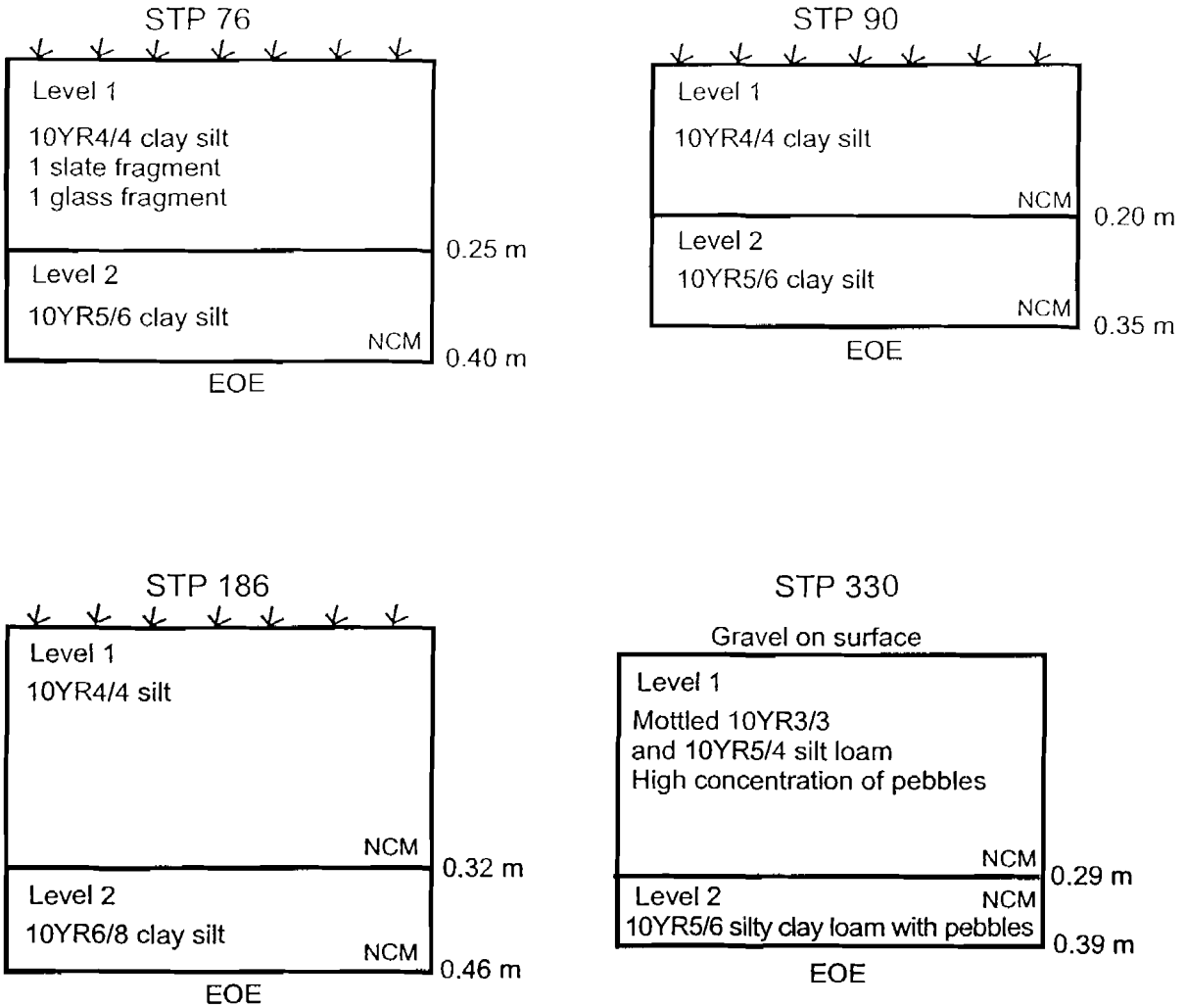

Figure 9

New Castle County, Delaware
Blue Ball Area Properties
Transportation Improvement Project

Phase I Archaeological Identification Survey
Representative Shovel Test Pit Profiles

IV. Recommendations

Two archaeological resources were identified during the Phase I Archaeological Identification Testing for the proposed improvements east of existing SR 0202, as well as widening to the southbound I-95 entrance ramp. The first resource is associated with 1 Rock Manor Avenue, an early twentieth century National Register eligible property. The artifacts are a light scatter of trash deposited throughout the occupation of the property and do not represent a significant archaeological resource. The site extends outside of the APE for this project (three meters from the existing edge fence) and may or may not have the potential to contribute significant information in history. However, the portion of the site within the APE does not have that potential. No additional archaeological work is recommended at this site.

The second resource is associated with the Weldin Plantation Archaeological Site, 7NC-B-11, the boundaries of which will be revised to include this area. The portion of 7NC-B-11 to the north of Weldin Road will be included in the discussion of the eligibility of the site in the management summary currently being prepared for the site. If the site is determined to be eligible for the National Register of Historic Places and this portion of the site cannot be avoided by the project, appropriate mitigation measures, determined in consultation with the Consulting Parties, will be undertaken.

No additional archaeological field work is recommended within the areas discussed in this document, with the exception of the 7NC-B-11.

IV. References

Arnold, Francine F.
2000 *Blue Ball Properties Area Transportation Improvement Project, New Castle County, Delaware, Historic Resources Survey and Determination of Eligibility Report.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

Catts, Wade P. and Douglas C. Kellogg
2000 *Blue Ball Properties Master Plan, Cultural Resources Documentation, Brandywine Hundred, New Castle County, Delaware.* Prepared by John Milner Associates, Inc. for Wallace Roberts & Todd.

Delaware State Historic Preservation Office
1993 (amended) *Guidelines for Architectural and Archaeological Surveys in Delaware.*

Mathews, Earle D. and Oscar L. Lavoie
1970 *Soil Survey, New Castle County, Delaware,* United States Department of Agriculture, Soil Conservation Service, Washington D.C.

Roberts, Daniel G.
1999 *Management Summary, Phase I Archaeological Survey, AstraZeneca Triangle Property, Brandywine Hundred, New Castle County, Delaware.* Prepared by John Milner Associates, Inc. for submission to AstraZeneca.

Shaffer, Barbara J.
2000 *Phase I Archaeological Identification Investigations, Management Summary, Blue Ball Properties Area Transportation Improvement Project, Proposed Route 141 Spur, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

Shaffer, Barbara J. and Francine F. Arnold
2000 *New Castle County, Delaware, Blue Ball Properties Area Transportation Improvement Project, Section 106 Consultation Proposal, Cultural Resources Scope of Work, October 3, 2000.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

Shaffer, Barbara J. and Robert H. Eiswert
2000 *Phase II Archaeological Investigations, Management Summary, National Register Evaluation of Archaeological Site 7NC-B-54 (Milner #1 Site), Blue Ball Properties Area Transportation Improvement Project, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

Shaffer, Barbara J. and Robert H. Eiswert
2001 *Phase II Archaeological Investigations, Management Summary, National Register Evaluation of Archaeological 7NC-B-49 (Augustine Cutoff Site), Blue Ball Properties Area Transportation Improvement Project, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

Taylor, Randolph K., Kimberly A. Snyder, Pamela Stephenson, Timothy A. Thompson, and Joan Walker
1989 *Archeological Investigations of the Proposed Dualization of Route 141 (Centre Road), From Route 100 (Montchanin Road) to U.S. Route 202 (Concord Pike), New Castle County, Delaware.* Prepared by Thunderbird Archeological Associates for submission to the Delaware Department of Transportation.

Wholey, Heather, Joan Walker, and William M. Gardner
2000 *Phase I Archeological Investigations for the Proposed Augustine Cut Off, New Castle County, Delaware.* Prepared by Thunderbird Archeological Associates for submission to the Delaware Department of Transportation.

Appendix A

Qualifications of Investigators

Qualifications of Investigators

***Barbara J. Shaffer**, Archaeologist, Principal Investigator*
M.A., Anthropology/Archaeology, Pennsylvania State University, 1996
Graduate Certificate, Historic Preservation, Goucher College, Maryland, 1999
B.A., Anthropology, Minor in Sociology, Pennsylvania State University, 1989
Meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology and Architectural History.
Eight years of professional experience in historic and archaeological research in the Middle Atlantic Region.

***Richard T. Baublitz**, Archaeological Group Coordinator*
M.A., Anthropology/Archaeology, University of Pennsylvania, 1991
B.A., Independent Studies, focus on East Asian History and Culture, University of Maryland, 1986
Meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology.
Ten years of professional experience in archaeological research in the Middle Atlantic region.

***Daniel P. Wagner**, Geomorphologist*
Ph.D., Soil Science, University of Maryland, 1982
M.S., Soil Science, University of Maryland, 1976
B.S., Soil Science, University of Maryland, 1973
Twenty-three years of experience interpreting soil depositional and weathering sequences on archaeological and historic sites.

***Francine F. Arnold**, Historic Structures Group Coordinator, Principal Investigator*
M.A., Historic Preservation, Graduate School of Fine Arts, University of Pennsylvania, in progress
B. A., General Arts and Science, Concentrations in Fine Arts and Anthropology, Pennsylvania State University, 1990
Meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History.
Ten years of experience in historic research, inventory, and evaluation of historic structures and archaeological resources in the Middle Atlantic region.

***Robert H. Eiswert**, Archaeologist, Field Director*
B.A., History and Anthropology, Bloomsburg University, Pennsylvania, 1995
Three years of professional experience in archaeological research in the Middle Atlantic region.

***Daniel J. Angelo**, Archaeological Field Technician*
B.S., Agricultural Sciences, Pennsylvania State University, 1997
A.S., Mechanical Engineering, Pennsylvania State University, 1990

***Jeffrey L. Bowdoin**, Archaeological Field Technician*
B.A., Anthropology and Sociology, Towson University, Maryland, in progress
One year of professional experience in archaeological research in the Middle Atlantic region.

Brenda L. Carr, *Archaeological Field Technician*
M.A., Anthropology, Specialization in Zooarchaeology, State University of New York at Binghamton, in progress
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Appendix B

Artifact Inventory

Blue Ball Phase I Inventory

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
C	42	*STP 72*	1				
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 1			
C	46	*STP 73*	1				
				1	Architectural	Building Material	Cement/Concrete
				1	Bottle	Unidentified	General
				2	Bottle	Malts	Beer
				1	Bottle	Unidentified	General
				1	Earthenware	Whiteware	Plain
				Total number of artifacts for this STP: 6			
C	101	*STP 75*	1				
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 1			
C	40	*STP 76*	1				
				1	Architectural	Building Material	Roofing Slate
				Total number of artifacts for this STP: 1			

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
C	41	*STP 77*	1				
				3	Architectural	Building Material	Roofing Slate
				Total number of artifacts for this STP: 3			
C	39	*STP 79*	1				
				1	Architectural	Glass	Window
				1	Architectural	Building Material	Brick
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 3			
		Total number of artifacts for this area: 15					
D	50	*STP 80*	1				
				2	Architectural	Building Material	Brick
				Total number of artifacts for this STP: 2			
D	49	*STP 81*	1				
				1	Earthenware	Whiteware	Plain
				Total number of artifacts for this STP: 1			
D	48	*STP 82*	1				
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 1			
D	55	*STP 86*	1				
				1	Architectural	Building Material	Brick
				Total number of artifacts for this STP: 1			

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
D	54	*STP 89*	1				
				1	Bottle	Malts	Beer
				Total number of artifacts for this STP: 1			
D	59	*STP 94*	1				
				1	Architectural	Glass	Window
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 2			
		Total number of artifacts for this area: 8					
E	52	*STP 105*	1				
				1	Activities	Heating Byproducts	Coal
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 2			
E	45	*STP 108*	1				
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 1			
E	51	*STP 109*	1				
				1	Architectural	Nail	Machine-cut
				Total number of artifacts for this STP: 1			
		Total number of artifacts for this area: 4					
F	44	*STP 127*	1				
				1	Unidentified	Other	Metal

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
				Total number of artifacts for this STP: 1			
F	57	*STP 137*	1				
				1	Earthenware	Ironstone/White Granite	Plain
				Total number of artifacts for this STP: 1			
F	58	*STP 139*	1				
				1	Architectural	Glass	Window
				Total number of artifacts for this STP: 1			
F	56	*STP 149*	1				
				1	Architectural	Glass	Window
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 2			
		Total number of artifacts for this area: 5					
G	102	*STP 159*	1				
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 1			
G	60	*STP 163*	1				
				1	Porcelain	Hard Paste	Decal-Underglaze
				Total number of artifacts for this STP: 1			
G	61	*STP 166*	1				
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 1			

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
G	98	*STP 410*	1				
				2	Activities	Recreation/Toys	Misc.
				1	Earthenware	Whiteware	Plain
				Total number of artifacts for this STP: 3			
		Total number of artifacts for this area: 6					
H	62	*STP 208*	1				
				1	Architectural	Glass	Window
				Total number of artifacts for this STP: 1			
H	63	*STP 210*	1				
				1	Architectural	Glass	Window
				Total number of artifacts for this STP: 1			
H	64	*STP 220*	1				
				1	Pipe	Bowl	Unidentified
				Total number of artifacts for this STP: 1			
H	65	*STP 223*	1				
				1	Earthenware	Whiteware	Plain
H	66	*STP 223*	2				
				2	Architectural	Glass	Window
				Total number of artifacts for this STP: 3			
H	67	*STP 227*	1				
				1	Stoneware	Gray	Salt Glazed, Miscellaneous Decorati

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
				Total number of artifacts for this STP: 1			
H	69	*STP 233*	1				
				1	Activities	Heating Byproducts	Glass Slag
				5	Furnishings	Stove	Misc.
				Total number of artifacts for this STP: 6			
H	72	*STP 239*	1				
				1	Earthenware	Red Bodied	Drk Brick to Black Glaze
				Total number of artifacts for this STP: 1			
H	73	*STP 242*	1				
				1	Porcelain	Hard Paste	Plain
				Total number of artifacts for this STP: 1			
H	70	*STP 249*	1				
				1	Architectural	Building Material	Lime
				1	Earthenware	Whiteware	Plain
				Total number of artifacts for this STP: 2			
H	68	*STP 252*	1				
				1	Earthenware	Red Bodied	Drk Brick to Black Glaze
				Total number of artifacts for this STP: 1			
H	71	*STP 265*	1				
				1	Architectural	Building Material	Building Stone
				Total number of artifacts for this STP: 1			

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
H	96	*STP 275*	1				
				1	Porcelain	Soft Paste	Overglaze Transfer Printed
				Total number of artifacts for this STP: 1			
H	87	*STP 278*	1				
				6	Architectural	Building Material	Brick
				Total number of artifacts for this STP: 6			
H	83	*STP 279*	1				
				1	Earthenware	Red Bodied	Drk Brick to Black Glaze
				1	Earthenware	Creamware	Plain
				2	Earthenware	Red Bodied	Unglazed
				Total number of artifacts for this STP: 4			
H	93	*STP 280*	1				
				1	Earthenware	Red Bodied	Clear Glaze
				Total number of artifacts for this STP: 1			
H	97	*STP 284*	1				
				3	Activities	Recreation/Toys	Misc.
				1	Bottle-Associated	Glass Liner	Fruit Jar
				Total number of artifacts for this STP: 4			
H	84	*STP 288*	1				
				1	Bottle	Unidentified	General
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 2			

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
H	88	*STP 290*	1				
				1	Architectural	Building Material	Brick
				Total number of artifacts for this STP: 1			
H	85	*STP 293*	1				
				1	Architectural	Glass	Window
				Total number of artifacts for this STP: 1			
H	95	*STP 295*	1				
				1	Earthenware	Ironstone/White Granite	Simple Bands
				Total number of artifacts for this STP: 1			
H	92	*STP 312*	1				
				1	Architectural	Glass	Window
				Total number of artifacts for this STP: 1			
H	91	*STP 327*	1				
				1	Porcelain	Soft Paste	Underglaze Transfer Printed
				Total number of artifacts for this STP: 1			
H	86	*STP 330*	1				
				1	Architectural	Glass	Window
				Total number of artifacts for this STP: 1			
H	90	*STP 344*	1				
				1	Activities	Agricultural	Machinery
				Total number of artifacts for this STP: 1			

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
		Total number of artifacts for this area:		44			
I	81	*STP 352*	1				
				1	Earthenware	Red Bodied	Drk Brick to Black Glaze
				Total number of artifacts for this STP: 1			
I	79	*STP 358*	1				
				1	Earthenware	Red Bodied	Unglazed
				1	Earthenware	Red Bodied	Drk Brick to Black Glaze
				1	Unidentified	Other	Styrofoam
				Total number of artifacts for this STP: 3			
I	75	*STP 359*	1				
				1	Activities	Livestock	Horseshoe
				1	Activities	Hardware, Non-arch.	Chain Link
				8	Architectural	Building Material	Brick
				1	Architectural	Glass	Window
				1	Architectural	Nail	Unidentified
				1	Bottle	Unidentified	General
				1	Bottle	Malts	Beer
				1	Earthenware	Red Bodied	Unglazed
				5	Earthenware	Red Bodied	Drk Brick to Black Glaze
				2	Earthenware	Red Bodied	Clear Glaze
				1	Earthenware	Creamware	Plain
				1	Earthenware	Whiteware	Decal, Underglaze
				1	Unidentified	Other	Styrofoam
				Total number of artifacts for this STP: 25			
I	94	*STP 362*	1				

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
				1	Activities	Heating Byproducts	Slag
				1	Earthenware	Red Bodied	YBr to Br Glaze
				Total number of artifacts for this STP: 2			
I	82	*STP 364*	1				
				1	Activities	Heating Byproducts	Coal/Cinder/Slag
				1	Architectural	Building Material	Brick
				1	Earthenware	Creamware	Plain
				2	Earthenware	Whiteware	Transfer Printed, Flowing Colors
				1	Earthenware	Whiteware	Shell Edge, Blue
				Total number of artifacts for this STP: 6			
I	74	*STP 370*	1				
				1	Architectural	Glass	Window
				Total number of artifacts for this STP: 1			
I	77	*STP 375*	2				
				1	Architectural	Nail	Unidentified
				1	Bottle	Malts	Beer
				1	Bottle	Unidentified	General
				1	Earthenware	Red Bodied	Unglazed
				Total number of artifacts for this STP: 4			
I	80	*STP 381*	1				
				1	Earthenware	Whiteware	Plain
				1	Earthenware	Red Bodied	Clear Glaze
				Total number of artifacts for this STP: 2			
I	76	*STP 387*	1				

Area	*FN#*	*Unit Type and #*	*Level*	*Count*	*Translation-Type*	*Translation-Subtype*	*Translation-Additional*
				1	Porcelain	Hard Paste	Simple Bands
				Total number of artifacts for this STP: 1			
I	78	*STP 390*	1				
				1	Bottle	Unidentified	General
				Total number of artifacts for this STP: 1			
I	89	*STP 399*	1				
				1	Architectural	Glass	Window
				Total number of artifacts for this STP: 1			

Total number of artifacts for this area: 47

Total number of artifacts: 287